# SEQUENCE LISTING

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Seq ID 22

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Seq ID 31

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Seq ID 32

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Seq ID 33

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tgcttactca agaaaaaaaa gatcttttg 90

Seq ID 34

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Seq ID 35
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Seq ID 36
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aggagctct 189

Seq ID 37
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Seq ID 38
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Seq ID 39
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accagctcgc agtgt 75

Seq ID 40
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Seq ID 41
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Seq ID 42
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Seq ID 43
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aatcaagaat acatcgcaga tctatgggcc ttatctttc 339

Seq ID 44
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Seq ID 45
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Seq ID 46
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Seq ID 47
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Seq ID 48
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tcggcaccct tagttactac gataaaac 147

Seq ID 49
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aaggtaaccg cagaaggaaa atcc 144

Seq ID 50
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Seq ID 51
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aatattattg catactggag tttgcgatac gtctgtctta gaatagatat taaaaccgtc 360
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ttcacatgga gaagtcgtgg tatc 444

Seq ID 52
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cgattttcac attcttcaag agttaggcca gaagttactg ttccagaaat aaggaactca 180

Seq ID 53
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agctatttt 189

Seq ID 54
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Seq ID 55
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ggtgatcagg aatca 135

Seq ID 56
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Seq ID 57
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aatgtctcta taagattc 258

Seq ID 58
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accctgtgct tattt 135

Seq ID 59
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Seq ID 60
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Seq ID 61
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Seq ID 62
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GVAFPLPTDAGVATATGTKSATINYHEWQVGASLSYRLNSLVPYIGVQWSRATFDADNIRIAQPKLPTAVLNLTAWNPSL
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Seq ID 63
MSVNPSGNSKNDLWITGAHDQHPDVKESGVTSANLGSHRVTASGGRQGLLARIKEAVTGFFSRMSFFRSGAPRGSQQPSA
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GPAPQPPPKTGGTNAKRAATHGKGPAPQPPKGILKQPGQSGTSGKKRVSWSDED

Seq ID 64
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KPGNDPDGVLMQVVISLGIEGPTLDPGESIQNFLETRVSDFGGDDSDIDYTSDIARLGSALDRVRENHPNEMPRIWIALA
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Seq ID 65
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SSLIGSIGVRSGPFFNVKEGLNRYGVESDLLTAGKDKAPMNPYTPWTSHDREERQATLDFLYGQFVDIVTQNRPLLTKEK
LVHTLGARIFSPEKAKQEGYIDVVGATKEQVLQDIVAVCKIEDNYRVIGSGGDGWWKRVASAAASSPLVTGMIKHDILPL
SHDAAYIPPYLAL

Seq ID 66
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Seq ID 67
MAAPINQPSTTTQITQTGQTTTTTTVGSLGEHSVTTTGSGAAAQTSQTVTLIADHEMQEIASQDGSAVSFSAEHSFSTLP
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GGGTNITSTKSTSTDDKVSITSTGSQSTIEEDTIQFDDPGQGEDDNAIPGTNTPPPPGPPPNLSSSRLLTISNASLNQVL
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SEGATPTPQPTIAKIVTSLRKANVSSSSVLPQPQVATTITPQARTASTSTTSIGTGTESTSTTSTGTGTGSVSTQSTGVG
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Seq ID 68
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ASDEEIERVLGTEKGFIGPLNCPIDFFADETTSPMTNFVCAGNAKDKHYVNVNWDRDLLPPQYGDFLLAEEGDTCPENPG
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Seq ID 69
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Seq ID 70
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LNKGGALYTETNLSIKDNKGPIIIKQNRALNSDSLGGGIYSGNSLNIEGNSGAIQITSNSSGSGGGIFSTQTLTISSNKK
LIEISENSAFANNYGSNFNPGGGGLTTTFCTILNNREGVLFNNNQSQSNGGAIHAKSIIIKENGPVYFLNNTATRGGALL
NLSAGSGNGSFILSADNGDIIFNNNTASKHALNPPYRNAIHSTPNMNLQIGARPGYRVLFYDPIEHELPSSFPILFNFET
GHTGTVLFSGEHVHQNFTDEMNFFSYLRNTSELRQGVLAVEDGAGLACYKFFQRGGTLLLGQGAVITTAGTIPTPSSTPT
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QIYPFITALAIRGNLAAFQESGDHAREFSLHRPLTDVSLPVGIRASWKNHHRVPLVWLTEISYRSTLYRQDPELHSKLLI
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Seq ID 71
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ASYIHQDSFKERNTTLVRSFDSGDLINVSVPIGITFERFSRNERASYEATVIYVADVYRKNPDCTTALLINNTSWKTTGT
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Seq ID 72
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KPEFINRLDESVIFRPLEKESLSEIIHLEINKLDSRLKNYQMALNIPDSVISFLVTKGHSPEMGARPLRRVIEQYLEDPL
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Seq ID 73
MGLQSRLQHCIEVSQNSNFDSQVKQFIYACQDKTLRQSVLKIFRYHPLLKIHDIARAVYLLMALEEGEDLGLSFLNVQQY
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LSQSFLFQLGMQIHPEYSLEDPALGFWMQRTRSSSAFVAASGCQSSLGAYSSGDVGVIAYGPCSGDISDCYYFGCCGIAK
EFVCQKSHQTTEISFLTSTGKPHPRNTGFSYLRDSYVHLPIRCKITISDKQYRVHAALAEATSAMTFSIFCKGKNCQVVD
GPRLRSCSLDSYKGPGNDIMILGENDAINIVSASPYMEIFALQGKEKFWNADFLINIPYKEEGVMLIFEKKVTSEKGRFF
TKMN

Seq ID 74
MTKIAFSEKAKNFPVEALKKWFEKNKRSLPWRDNPTPYSVWVSEVMLQQTRAEVVIDYFNQWMERFPTIESLAAAKEEDV
IKLWEGLGYYSRARHLLEGARMVMEEFHGKIPDDAISLAQIRGVGPYTVHAILAFAFKRRAAAVDGNVLRVLSRIFLIET
SIDLESTRTWVSRIAQALLPHKSPEVIAEALIELGACICKKVPQCHRCPVRQACGAWRENKQFVLPVRHARKKVIFLHRL
VAIVLYDGSLVVEKRRPKEMMAGLYEFPYIEVEPEEGLQDIEGFTKKMELSLESPLEFLGNLKEQRHAFTNHKVHLCPII
FKATSLPQFGELHLLSDIDHLAFSSGHKKIKDALLIYLGDVRSRESIGV

Seq ID 75
MAVSGGGGVQPSSDPGKWNPALQGEQAEGPSPLKESIFSETKQASSAAKQESLVRSGSTGMYATESQINKAKYRKAQDRS
STSPKSKLKGTFSKMRASVQGFMSGFGSRASRVSAKRASDSGEGTSLLPTEMDVALKKGNRISPEMQGFFLDASGMGGSS
SDISQLSLEALKSSAFSGARSLSLSSSESSSVASFGSFQKAIEPMSEEKVNAWTVARLGGEMVSSLLDPNVETSSLVRRA
MATGNEGMIDLSDLGQEEVSTAMTSPRAVEGKVKVSSSDSPEANPTGIPNSNTLERAEKEAEKQESREQLSEDQMMLARA
MAGLLTGAAPQEVLSNSVWSGPSTVFPPPKFSGTLPTQRSGDKSKHKSPGIEKSTNHTNFSPLREGTVKSAEVKSLPHPE
SMYRFPKDSIVSREEPEAVVKESTAFKNPENSSQNFLPIAVESVFPKESGTGGALGSDAVSSSYHFLAQRGVSLLAPLPR
ATDDYKEKLEAHKGPGGPPDPLIYQYRNVAVEPPIVLRSPQPFSGSSRLSVQGKPEAASVHDDGGGGNSGGFSGDQRRGS
SGQKASRQEKKGKKLSTDI

Seq ID 76
MKRRSWLKILGICLGSSIVLGFLIFLPQLLSTESGKYLVFSLIHKESGLSCSAEELKISWFGRQTARKIKLTGEAKDEVF
SAEKFELDGSLLRLLIYKKPKGITLSGWSLKINEPASIDHPSVSHLDPGSLLTYLNDCKIISEHGFITMKTVSGSSLSVS
GFYLEKSSEKFMTKCVVSEDQQSGNIFIESVLSPDVSISAQFSSVPVAFFKIFIASPFWDHLLSYEDIINLSAEATHTND
GKISMTASGEGNQIQMKLQGHIHKSTFYIVEGSSSFIELKPELASALCNQIIPLSTPITSKQIHATVSYAKIPLDITKWK
HIEITSQAQLPEVAIHPKDPNLALQLRDTKLGIKKTEKFSDIRYSSSTVLGGASPSHLNGLISIDNKKHLTKFRLQQAQL
PHTYLRAIFPQPFVINVPLDVAYYSLNIEGTYKNAHLEADAILDNPLLKLSCSMSGAWKNFLFKGQGTYHFNKKWQEILS
PHFSYAEARFSGKAQITDTNLFFPKFSGKITARENELLIHAKFGSPNEPIKPETTSILIHGQFCSLPLSLVSNHLAPFHL
SMYRFPKDSIVSREEPEAVVKESTAFKNPENSSQNFLPIAVESVFPKESGTGGALGSDAVSSSYHFLAQRGVSLLAPLPR
KKLTFSFHTDGGKFVTKGNLQALIENPDYPDLNNTRILIPDLLLSLDESSTSPSSKDLKIQGSGEIFSLPLDSITKTYGK
QVRLSPYFGSSGDLNFVVNYNPKDQNKLTLLSNFKSEALLGELKLVMDFSMKLSSGTQGTLQWEVSPERYASFFKNASCS
PTCLLHRTANVRLDISKLSCPEETKGLSCLTLLAAGGLEGSLEATPLIFYDNVSKETFIINDFKGSLRANNLDAKIEYDL
KGSCLAPRQDSKTLAEFSLEGQVDHLFSPESREFKQTANWIHIPSSFIAGIIPMSPGLKAQISSLAGPRINVSIKNAFRF
GEGPVDIMVDSENLQAQIPLILNEKSILLRENLTAHLSINEDVNKAFLQEFNPLLAGGAYSQYPVTLEIDKQNFYLPIRP
YSFEEFRIQSATLDMGKISIANTGTMYALFQFLDITDQKQFVESWFTPIFFSVQKGSIICKRXDALIDRRIRLALWGKTD
IAHDRLFMTLGIDPEVIKKYFHNTSLKTKNFFLIKIRGSISSPEVDWSSAYARIALLKSYSLGNPFSSLADKLFSSLGDS
TPPPTVHPFPWEKSNFDSIENK

Seq ID 77
MSSPVNNTPSAPNIPIPAPTTPGIPTTKPRSSFIEKVIIVAKYILFAIAATSGALGTILGLSGALTPGIGIALLVIFFVS
MVLLGLILKDSISGGEERRLREEVSRFTSENQRLTVITTTLETEVKDLKAAKDQLTLEIEAFRNENGNLKTTAEDLEEQV
SKLSEQLEALERINQLIQANAGDAQEISSELKKLISGWDSKVVEQINTSIQALKVLLGQEWVQEAQTHVKAMQEQIQALQ
AEILGMHNQSTALQKSVENLLVQDQALTRVVGELLESENKLSQACSALRQEIEKLAQHETSLQQRIDAMLAQEQNLAEQV
TALEKMKQEAQKAESEFIACVRDRTFGRRETPPPTTPVVEGDESQEEDEGGTPPVSQPSSPVDRATGDGQ

Seq ID 78
MRYDPNLIEKKWQQFWKEHRSFQANEDEDKVKYYVLDMFPYPSGAGLHVGHLIGYTATDIVARYKRARGFSVLHPMGWDS
FGLPAEQYAIRTGTHPKVTTQKNIANFKKQLSAMGFSYDEGREFATSDPDYYHWTQKLFLFLYDQGLAYMADMAVNYCPE
LGTVLSNEEVENGFSIEGGYPVERKMLRQWILKITAYADKLLEGLDALDWPENVKQLQKNWIGKSEGALVTFHLTQEGSL
EAFTTRLDTLLGVSFLVIAPEHPDLDSIVSEEQRDEVTAYVQESLRKSERDRISSVKTKTGVFTGNYAKHPITGNLLPVW
ISDYVVLGYGTGVVMGVPAHDERDREFAEMFSLPIHEVIDDNGVCIHSNYNDFCLNGLSGQEAKDYVINYLEMRSLGRAK
TMYRLRDWLFSRQRYWGEPIPIIHFEDGTHRPLEDDELPLLPPNIDDYRPEGFGQGPLAKAQDWVHIYDEKTGRPGCRET
YTMPQWAGSCWYYLRFCDAHNSQLPWSKEKESYWMPVDLYIGGAEHAVLHLLYSRFWHRVFYDAGLVSTPEPFKKLINQG

LVLASSYRIPGKGYVSIEDVREENGTWISTCGEIVEVRQEKMSKSKLNGVDPQVLIEEYGADALRMYAMFSGPLDKNKTW
SNEGVGGCRRFLNRFYDLVTSSEVQDIEDRDGLVLAHKLVFRITEHIEKMSLNTIPSSFMEFLNDFSKLPVYSKRALSMA
VRVLEPIAPHISEELWVILGNPPGIDQAAWPQIDESYLVAQTVTFVVQVNGKLRGRLEVAKEAPKEEVLSLSRSVVAKYL
ENAQIRKEIYVPNKLVNFVL

Seq ID 79
LEKIMFGENSRDIGVLSKEGLFDKLEIGIASDITIRDKWSCGEIKKPETINYRTFKPEKGGLFCEKIFGPTKDWECCCGK
YKKIKHKGIVCDRCGVEVTLSKVRRERMAHIELAVPIVHIWFFKTTPSRIGNVLGMTASDLERVIYYEEYVVIDPGKTDL
TKKQLLNDAQYREVVEKWGKDAFVAKMGGEAIYDLLKSEDLQSLLKDLKERLRKTKSQQARMKLAKRLKIIEGFVSSSNH
PEWMVLKNIPVVPPDLRPLVPLDGGRFATSDLNDLYRRVINRNNRLKAILRLKTPEVIVRNEKRMLQEAVDALFDNGRHG
HPVMGAGNRPLKSLSEMLKGKNGRFRQNLLGKRVDYSGRSVIIVGPELKFNQCGLPKEMALELFEPFIIKRLKDQGSVYT
IRSAKKMIQRGAPEVWDVLEEIIKGHPVLLNRAPTLHRLGIQAFEPVLIEGKAIRIHPLVCAAFNADFDGDQMAVHVPLS
VEAQLEAKVLMMAPDNIFLPSSGKPVAIPSKDMTLGLYYLMADPTYFPEEHGGKTKIFKDEIEVLRALNNGGFIDDVFGD
RRDETGRGIHIHEKIKVRIDGQIIETTPGRVLFNRIVPKELGFQNYSMPSKRISELILQCYKKVGLEATVRFLDDLKDLG
FIQATKAAISMGLKDVRIPDIKSHILKDAYDKVAIVKKQYDDGIITEGERHSKTISIWTEVSEQLSDALYVEISKQTRSK
HNPLFLMIDSGARGNKSQLKQLGALRGLMAKPNGAIIESPITSNFREGLTVLEYSISSHGARKGLADTALKTADSGYLTR
RLVDVAQDVIITEKDCGTLNHIEISAIGQGSEELLPLKDRIYGRTVAEDVYQPGDKSRLLAQSGDVLNSVQAEAIDDAGI
ETIKIRSTLTCESPRGVCAKCYGLNLANGRLIGMGEAVGIIAAQSIGEPGTQLTMRTFHLGGIAATSSTPEIITNSDGIL
VYMDLRVVLGQEGHNLVLNKKGALHVVGDEGRTLNEYKKLLSTKSIESLEVFPVELGVKILVADGTPVSQGQRIAEVELH
NIPIICDKPGFIKYEDLVEGISTEKVVNKNTGLVELIVKQHRGELHPQIAIYDDADLSELVGTYAIPSGAIISVEEGQRV
DPGMLLARLPRGAIKTKDITGGLPRVAELVEARKPEDAADIAKIDGVVDFKGIQKNKRILVVCDEMTGMEEEHLIPLTKH
LIVQRGDSVIKGQQLTDGLVVPHEILEICGVRELQKYLVNEVQEVYRLQGVDINDKHIEIIVRQMLQKVRITDPGDTTLL
FGEDVNKKEFYEENRRTEEDGGKPAQAVPVLLGITKASLGTESFISAASFQDTTRVLTDAACCSKTDYLLGFKENVIMGH
MIPGGTGFETHKRIKQYLEKEQEDLVFDFVSETECVC

Seq ID 80
MDTQSSIGNEEWRIAGTSVVSGMALGKVFFLGTSPLHVRELTLPQEEVEHEIHRYYKALNRSKSDIVALEQEVTGQQGLQ
EVSSILQAHLEIMKDPLLTEEVVNTIRKDRKNAEYVFSSVMGKIEESLTAVRGMPSVVDRVQDIHDISNRVIGHLCCQHK
SSLGESDQNLIIFSEELTPSEVASANSAYIRGFVSLVGAATSHTAIVSRAKSIPYLANISEELWNIAKRYNGKLVLIDGY
RGELIFNPKPATLQSCYKKELSVVAHTSQRLVRKSLHPIVSSHAGSDKDVEDLLENFPQTSIGLFRSEFLAVILGRLPTL
REQVDLYEKLARFPGDSPSVLRLFDFGEDKPCPGIKNKKERSIRWLLDYSVILEDQLQAIAKASLQGSIKVLIPGVSDVS
EIIEVKKKWETIQTRFPKGHKVSWGTMIEFPSAVWMIEEILPECDFLSIGTNDLVQYTLGISRESALPKHLNVTLPPAVI
RMIHHVLQAAKQNQVPVSICGEAAGQLSLTPLFIGLGVQELSVAMPVINRLRNHIALLELNSCLEITEALLQAKTCSEVE
ELLNRNNKITS

Seq ID 81
MRQEKDSLGIVEVPEDKLYGAQTMRSRNFFSWGPELMPYEVIRALVWIKKCAAQANQDLGFLDSKHCDMIVAAADEILEG
GFEEHFPLKVWQTGSGTQSNMNVNEVIANLAIRHHGGVLGSKDPIHPNDHVNKSQSSNDVFPTAMHIAAVISLKNKLIPA
LDHMIRVLDAKVEEFRHDVKIGRTHLMDAVPMTLGQEFSGYSSQLRHCLESIAFSLAHLYELAIGATAVGTGLNVPEGFV
EKIIHYLRKETDEPFIPASNYFSALSCHDALVDAHGSLATLACALTKIATDLSFLGSGPRCGLGELFFPENEPGSSIMPG
KVNPTQCEALQMVCAQVLGNNQTVIIGGSRGNFELNVMKPVIIYNFLQSVDLLSEGMRAFSEFFVKGLKVNKARLQDNIN
NSLMLVTALAPVLGYDKCSKAALKAFHESISLKEACLALGYLSEKEFDRLVVPENMVGNH

Seq ID 82
MGLYDRDYIQDSRVQGTFASRVYGWMTAGLIVTSCVALGLYFSGLYRSLFSFWWVWCFATLGVSFFINSKIQTLSVSAVG
GLFLLYSTLEGMFFGTLLPVYAAQYGGGVIWAAFGSAALVFGLAAVYGAFTKSDLTKISKIMTFALIGLLLVTLVFAVVS
MFVSMPLIYLLICYLGLVIFVGLTAADAQAIRRISSTIGDNNTLSYKLSLMFALKMYCNVIMVFWYLLQIFSSSGNRD

Seq ID 83
MVAKKTVRSYRSSFSHSVIVAILSAGIAFEAHSLHSSELDLGVFNKQFEEHSAHVEEAQTSVLKGSDPVNPSQKESEKVL
YTQVPLTQGSSGESLDLADANFLEHFQHLFEETTVFGIDQKLVWSDLDTRNFSQPTQEPDTSNAVSEKISSDTKENRKDL
ETEDPSKKSGLKEVSSDLPKSPETAVAAISEDLEISENISARDPLQGLAFFYKNTSSQSISEKDSSFQGIIFSGSGANSG
LGFENLKAPKSGAAVYSDRDIVFENLVKGLSFISCESLEDGSAAGVNIVVTHCGDVTLTDCATGLDLEALRLVKDFSRGG
AVFTARNHEVQNNLAGGILSVVGNKGAIVVEKNSAEKSNGGAFACGSFVYSNNENTALWKENQALSGGAISSASDIDIQG
NCSAIEFSGNQSLIALGEHIGLTDFVGGGALAAQGTLTLRNNAVVQCVKNTSKTHGGAILAGTVDLNETISEVAFKQNTA
ALTGGALSANDKVIIANNFGEILFEQNEVRNHGGAIYCGCRSNPKLEQKDSGENININIGNSGAITFLKNKASVLEVMTQA
EDYAGGGALWGHNVLLDSNSGNIQFIGNIGGSTFWIGEYVGGGAILSTDRVTISNNSGDVVFKGNKGQCLAQKYVAPQET
APVESDASSTNKDEKSLNACSHGDHYPPKTVEEEVPPSLLEEHPVVSSTDIRGGGAILAQHIFITDNTGNLRFSGNLGGG
EESSTVGDLAIVGGGALLSTNEVNVCSNQNVVFSDNVTSNGCDSGGAILAKKVDISANHSVEFVSNGSGKFGGAVCALNE
SVNITDNGSAVSFSKNRTRLGGAGVAAPQGSVTICGNQGNIAFKENFVFGSENQRSGGGAIIANSSVNIQDNAGDILFVS
NSTGSYGGAIFVGSLVASEGSNPRTLTITGNSGDILFAKNSTQTAASLSEKDSFGGGAIYTQNLKIVKNAGNVSFYGNRA
PSGAGVQIADGGTVCLEAFGGDILFEGNINFDGSFNAIHLCGNDSKIVELSAVQDKNIIFQDAITYEENTIRGLPDKDVS
PLSAPSLIFNSKPQDDSAQHHEGTIRFSRGVSKIPQIAAIQEGTLALSQNAELWLAGLKQETGSSIVLSAGSILRIFDSQ
VDSSAPLPTENKEETLVSAGVQINMSSPTPNKDKAVDTPVLADIISITVDLSSFVPEQDGTLPLPPEIIIPKGTKLHSNA

IDLKIIDPTNVGYENHALLSSHKDIPLISLKTAEGMTGTPTADASLSNIKIDVSLPSITPATYGHTGVWSESKMEDGRLV
VGWQPTGYKLNPEKQGALVLNNLWSHYTDLRALKQEIFAHHTIAQRMELDFSTNVWGSGLGVVEDCQNIGEFDGFKHHLT
GYALGLDTQLVEDFLIGGCFSQFFGKTESQSYKAKNDVKSYMGAAYAGILAGPWLIKGAFVYGNINNDLTTDYGTLGIST
GSWIGKGFIAGTSIDYRYIVNPRRFISAIVSTVVPFVEAEYVRIDLPEISEQGKEVRTFQKTRFENVAIPFGFALEHAYS
RGSRAEVNSVQLAYVFDVYRKGPVSLITLKDAAYSWKSYGVDIPCKAWKARLSNNTEWNSYLSTYLAFNYEWREDLIAYD
FNGGIRIIF

Seq ID 84
MLIKLWRATYEGMYTFLVGALLKLRYRMQVEGWDTLNINPKQGCLFLANHVAEVDPIILEYLFWSRFHVRPMAVEYLFHS
RVVQWFLNSVRSIPIPQLVPGKESKRSLERMNVCYEEASRALNRGESLLLYPSGRLSRTGKEEIVNQYSAYVLLHRVMEC
NVVLVRVSGLWGSAFSRYKQNSTPKLGPAFKEAFRALLRRGIFFMPKRFVKITLCQVDHLFLKQFPTKQDLNTFLASWFN
QGDDNLPIEVPYA

Seq ID 85
MINKELDIGILGKIAGAIKQISIESIQKASSGHPGLPLGCAELAAYLYGYVLRQNPRDPHWINRDRFVLSAGHGSXLLYS
CLHLAGFDVSLEDLQEFRQLHSRTPGHPEYGETVGVEATTGPLGQGLGNAVGMALSMKMLESRFNRPGHEIFNGKIYCLA
GDGCFMEGVSHEVCSFAGSLNLNNLVVIYDYNNVVLDGYLNEISVEDTKKRFEAYGWDVYEIDGYDFTHIHETFSSIKRG
QERPVLVIAHTIIGHGSPKEGTNKAHGSPLGVEGTHETKQFWHLPEEKFFVPPAVKNFFAHKIQEDRKAQEQWLDEVRVW
SKQFPELHEEFVALTSHKLPKNLESLVQSVEMPDSIAGRAASNKLIQVLVQHIPYLIGGSADLSSSDGTWIANEKVIHTY
DFSGRNIKYGVREFGMATIMNGLAYSQVFRPFGGTFLVFSDYMRNAIRLAALSKLPVIYQFTHDSIFVGEDGPTHQPVEQ
LMSLRAIPGLYVIRPADANEVRGAWIAGLKHTGPTVIVLSRQALPTLPAAHRPFKDGVGRGAYIVLKESGEKPDYTLFAT
GSEVSLALSVAKELEHLDKQVRVVSFPCWELFEAQDVDYKQSIVGGDLGIRVSIEAGSALGWYKYIGSEGLAIAMDRFGY
SGASDDVSEECGFTTEQILQRILSQ

Seq ID 86
MSTMQNCPHFGVCGGCSFPQSNYSDSLKKKEELLHQLFAPLVPSDMIAPIIPCSPSLRGRNKMEFSFFQTYEGEKSLGFI
SSTKPKKGIPVTTCLLIHEQTMDILKLTREWWDKHPELMAYFPPKNKGSLCTLTVRTGSPQQNFMVILTTSGTPEYRVNE
ACIDEWKEILLSSSLNIASIYWEEKVAARGISTYYETKLLYGAPSIQQKLSLPSDGNSASFSLRPRSFFQPQITQAAKII
ETAKEFINPEGSETLLDLYCGAGTIGIMLSPYVKNVIGVEIIPDAVASAQENIKANNKEDCVEVYLEDAKAFCKRNENCK
APDVIIIDPPRCGMQSKVLKYILRIGSPKIVYISCNPKTQFQECADLISGGYRIKKMQPIDQFPYSTHLENIILLEREID
L

Seq ID 87
MTSGVSGSSSQDPTLAAQLAQSSQKAGNAQSGHDTKNVTKQGAQAEVAAGGFEDLIQDASAQSTGKKEATSSTTKSSKGE
KSEKSGKSKSSTSVASASETATAQAVQGPKGLRQNNYDSPSLPTPEAQTINGIVLKKGMGTLALLGLVMTLMANAAGESW
KASFQSQNQAIRSQVESAPAIGEAIKRQANHQASATEAQAKQSLISGIVNIVGFTVSVGAGIFSAAKGATSALKSASFAK
ETGASAAGGAASKALTSASSSVQQTMASTAKAATTAASSAGSAATKAAANLTDDMAAAASKMASDGASKASGGLFGEVLN
KPNWSEKVSRGMNVVKTQGARVASFAGNALSSSMQMSQLMHGLTAAVEGLSAGQTGIEVAHHQRLAGQAEAQAEVLKQMS
SVYGQQAGQAGQLQEQAMQSFNTALQTLQNIADSQTQTTSAIFN

Seq ID 88
MSIVRNSALPLPCLSRSETFKKVRSHMKFMKVLTPWIYRKDLWVTAFLLTAIPGSFAHTLVDIAGEPRHAAQATGVSGDG
KIVIGMKVPDDPFAITVGFQYIDGHLQPLEAVRPQCSVYPNGITPDGTVIVGTNYAIGMGSVAVKWVNGKVSELPMLPDT
LDSVASAVSADGRVIGGNRNINLGASVAVKWEDDVITQLPSLPDAMNACVNGISSDGSIIVGTMVDVSWRNTAVQWIGDQ
LSVIGTLGGTTSVASAISTDGTVIVGGSENADSQTHAYAYKNGVMSDIGTLGGFYSLAHAVSSDGSVIVGVSTNSEHRYH
AFQYADGQMVDLGTLGGPESYAQGVSGDGKVIVGRAQVPSGDWHAFLCPFQAPSPAPVHGGSTVVTSQNPRGMVDINATY
SSLKNSQQQLQRLLIQHSAKVESVSSGAPSFTSVKGAISKQSPAVQNDVQKGTFLSYRSQVHGNVQNQQLLTGAFMDWKL
ASAPKCGFKVALHYGSQDALVERAALPYTEQGLGSSVLSGFGGQVQGRYDFNLGETVVLQPFMGIQVLHLSREGYSEKNV
RFPVSYDSVAYSAATSFMGAHVFASLSPKMSTAATLGVERDLNSHIDEFKGSVSAMGNFVLENSTVSVLRPFASLAMYYD
VRQQQLVTLSVVMNQQPLTGTLSLVSQSSYNLSF

Seq ID 89
MFRCILFGIFLLTCFSSGGVLYYLFCSHDFSIGPKEKSRSVWIEEEKEFTDSVLHHLPSQHQHLHILCFQGFLLQKQQKF
SQAEKIFSKVYDEAQDGPFLFKEEILGSRLINSFFLEKTDVMETILCLLNQRCPNSPYYHLFKALVCYKQKLYREVIEQL
AYWQEEKTRALAPLLNISIEQLLTDFLLDYISAHSLIEQKMFPEGRVILNRNINRLLKHECEWNAKTYDRIAILLSRSYF
LELVESKSADIYFDYYEMVLFYLKKIYILEQCPYAELLPEEELVSLIMEHVFILPKDKLYPLIQLLEMWQKHYVHPNSSL
VVQILVDRFSTHMEGAIRFCEALVSFSGLEELHQQIITTFEELLSNKVQQIKTEEAKQCVALLHILDPSISISEKLALSS
DTLQNIVSGDDEQHTKLRNYLDLWEAIQSYDIDRQQLVHHLVYGAKDLWKKGGNDEKALNLLQLVLRFTSYDIECESVVF
LFIKQAYKQALSSHAIARLLKLEKFISEANIPSIVISEAEKANFLADAEYLFAHEDYDKCYLYSMWLTKVAPSPQSYRLA
GLCLMENKRYDEALEFLCMLSPNNSINDYKTQKALAFCQKHQSKDRAAS

Seq ID 90
MLGKEEEFTCKQKQCLSHFVTNLTSDVFALKNLPEVVKGALFSKYSRSVLGLRALLLKEFLSNEEDGDVCDEAYDFETDV
QKAADFYQRVLDNFGDDSVGELGGAHLAMENVSILAAKVLEDARIGGSPLEKSTRYVYFDQKVRGEYLYYRDPILMTSAF

KDMFLGTCDFLFDTYSALIPQVRAYFEKLYPKDSKTPASAYATSLRAKVLDCIRGLLPAATLTNLGFFGNGRFWQNLIHK
LQGHNLAELRRLGDESLTELMKVIPSFVSRAEPHHHHHQAMMQYRRALKEQLKGLAEQATFSEEMSSSPSVQLVYGDPDG
IYKVAAGFLFPYSNRSLTDLIDYCKKMPHEDLVQILESSVSARENRRHKSPRGLECVEFGFDILADFGAYRDLQRHRTLT
QERQLLSTHHGYNFPVELLDTPMEKSYREAMERANETYNEIVQEFPEEAQYMVPMAYNIRWFFHVNARALQWICELRSQP
QGHQNYRTIATGLVREVVKFNPMYELFFKFVDYSDIDLGRLNQEMRKEPTT

Seq ID 91
RVMKAVVSHKSRTSSIHRQYSSYSLFYSILK

Seq ID 92
DGVNFGNLFQPCPYCRGKYPSPTCTSTLSPSSS

Seq ID 93
GLRRFCKRYSIVVSESGEPFCLLKKKKIFL

Seq ID 94
NFPICDRSSRFRGDCRDEDLCGRNRYEAFPDDKTEGHLCSCDTLALSKYCCLHSHGIWWIDSHASSPCCFCRIGGCFCNT
PYGFLRIFLRRLPTESKIEYQ

Seq ID 95
FLPVLPGLLLGPPLPQMSFRL

Seq ID 96
FFIKYSLSNGYGIQKYLQTRLSAIPEWHFSGTNTSSKIKKLCEELSQNCSYHRSTGILGLRSS

Seq ID 97
CSYSVYSLWSLLQLLMLMKSEKKKSKFFNVSHHFQKVLRLSEDNMVQERFKESRSLAIVKKRMLTKIPE

Seq ID 98
AQAFGSLLLRML

Seq ID 99
ELLISYQRKTSSAIGKKNFTTSSQC

Seq ID 100
EGREDLPSALRKGSPTSGNSNFRSAAYCGSCC

Seq ID 101
RLRSTTNTSQSSPQWDCTHPIYLCDVPHGSGYV

Seq ID 102
APQARGDTKIRGYRNRTRAC

Seq ID 103
GRLLKQCMLSSLRKWLAILQLFLIAQEKLRTLRLQILLLPSTLVKSKQALYHVLSVLQNTIDSWKLKKSLDPKQFSQILM
YFLTRILRNRGIFSISILSPNQEYIADLWALSF

Seq ID 104
STNPTVALASIFDAKTTKCP

Seq ID 105
TDILVKFIKNIFPPLWRGNVVPRSKNMTSIYTHANGNLIFQILNEVTQFFKVTPN

Seq ID 106
SSRCTQREIAGRRTVNTPKPKRCMGS

Seq ID 107
IDATQINLNASQVDIHIRNHSSSYWSARTCMRRRVSPSTWSFIYKGEVWSWGRFPVNAFQAPNIIPNRTCFYFCSTTPCR
GCISTTRFFSIPRTVDYSSFKFHAEHQMIVISCGSRALFHCRFYASRP

Seq ID 108
ALLSRACVASIIPARKSASIAICLPGIASNRNRAATSATRSAPLVTTIN

Seq ID 109
NKVITGSWRVGACESMETRKPPKCLKKKVDREKAVNIETIKVTAEGKS

Seq ID 110
GISVMMMLSRCLSSFSSTCRRARTLIFPRPVVYVERIPSEPQIIPPVGKSGPGMTCKISSTEACGFASRRSVASISSPKL
CGGIFVAIPTAIPEEPLQRRFGNLEGKTTGSCFVSS

Seq ID 111
SGRIISVMLSAPPCELHSDLIDPDLFEFNHRLNICISAEVRGRVTTHTFRGDSCNMSFNCSVRGNVITIPRIIRIEIRSL
TSSFSIITKCKRISSRLRITNIIAYWSLRYVCLRIDIKTVRECSSIKLRTFRRHITLHNKFTWRSRGI

Seq ID 112
SDRNSFSISVSFSKYADFIAPLNWSLRTRRAFNPVEAALIRFSHSSRVRPEVTVPEIRNS

Seq ID 113
MPWIFYKLFNININGVIKTGFGFCTCGRKRSIEFVLFFNNTNSSSPTSSNGFNNNRETYFFSYF

Seq ID 114
ISMSSIETPSSPTTSIRLPISEPFSRNCAAFFTAPPQPETFSSKICPTWFKYFDQEIKGSIEGYLRASARAFERPQNAPT
TANVD

Seq ID 115
GDLEHYKHIHGPFSKSSHHGKRHKRHNYLMFLQCRYKTLCGDQES

Seq ID 116
RVSFNASPPITTSRRDSKQEFCFFAVFRI

Seq ID 117
SINPLAPQRSLGPAIQYQLEEWPIQDTSISRDPKRLSSTNTSVSYRNASEIFSCNSSLSRTKNIPILDPKCAVFTIIGKE
NVSIRF

Seq ID 118
PLGPAPITTQSNSWVIFSLTVIKISKRTPLHKCMHLIKKRTLCLF

Seq ID 119
GEQPFLFHPTSQQSLSLYHHYIGTLQSSFHHWKHPLQKIAFPQKIFQDQQVHRLPTSQRGKTDLDPRFL

Seq ID 120
VTSKYASMRPSIPNPASHTRKIARAPTSRLTRFPYAGYISSKKYQGAPVSPQGRSEPSGNTMRFEESPGTHTRPPSPRTD
SEINRSLSLPGIAVG